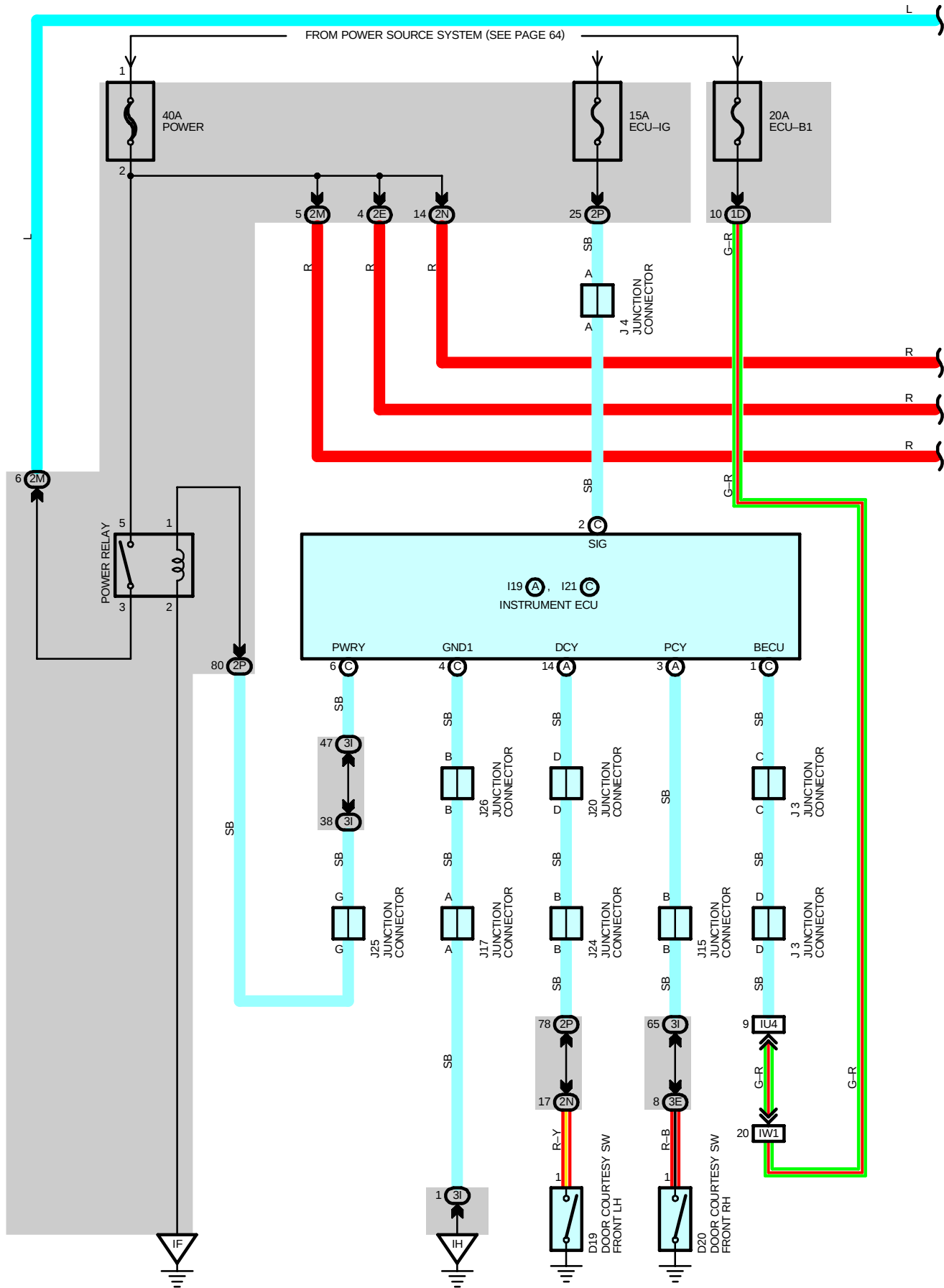
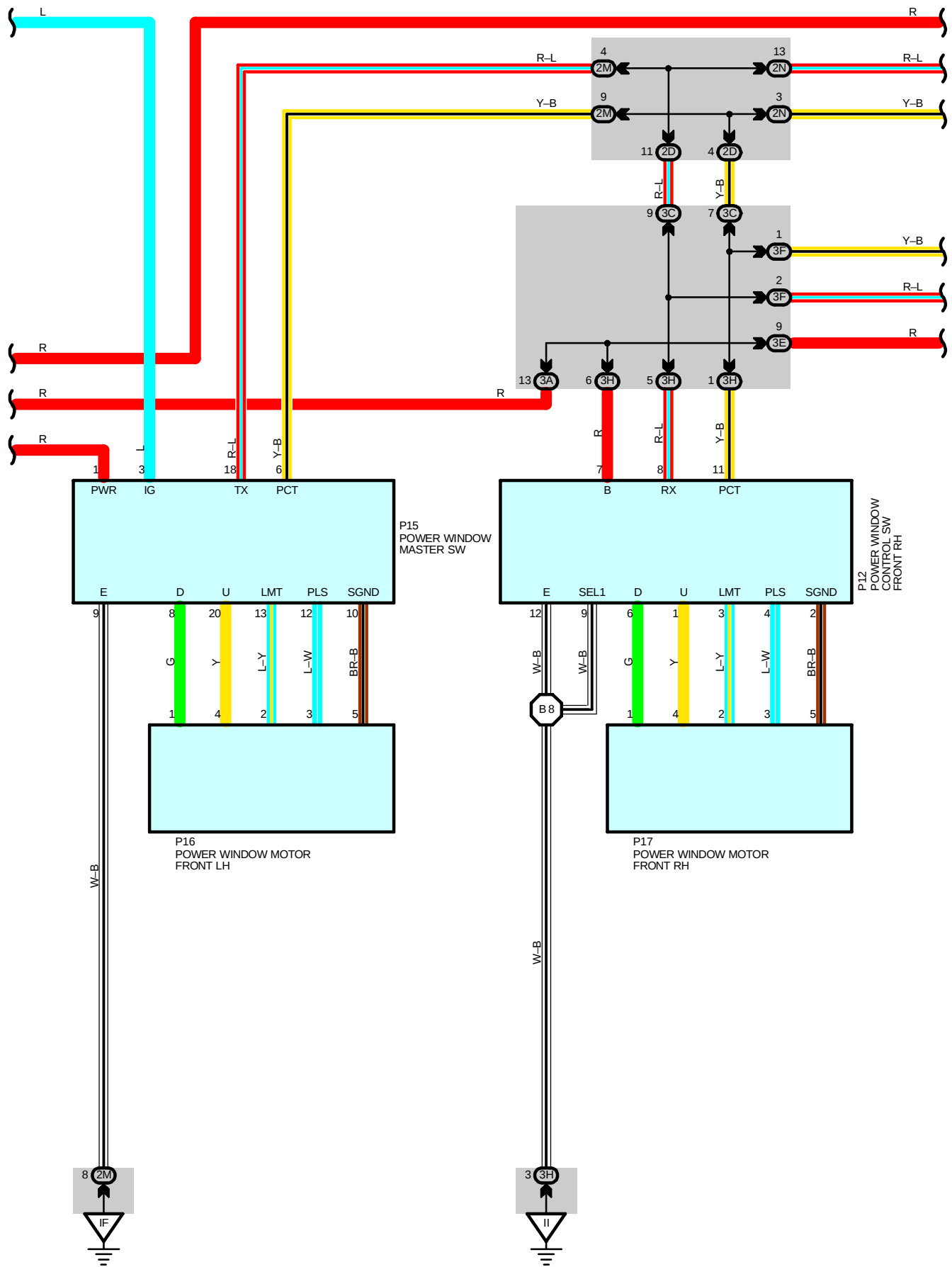
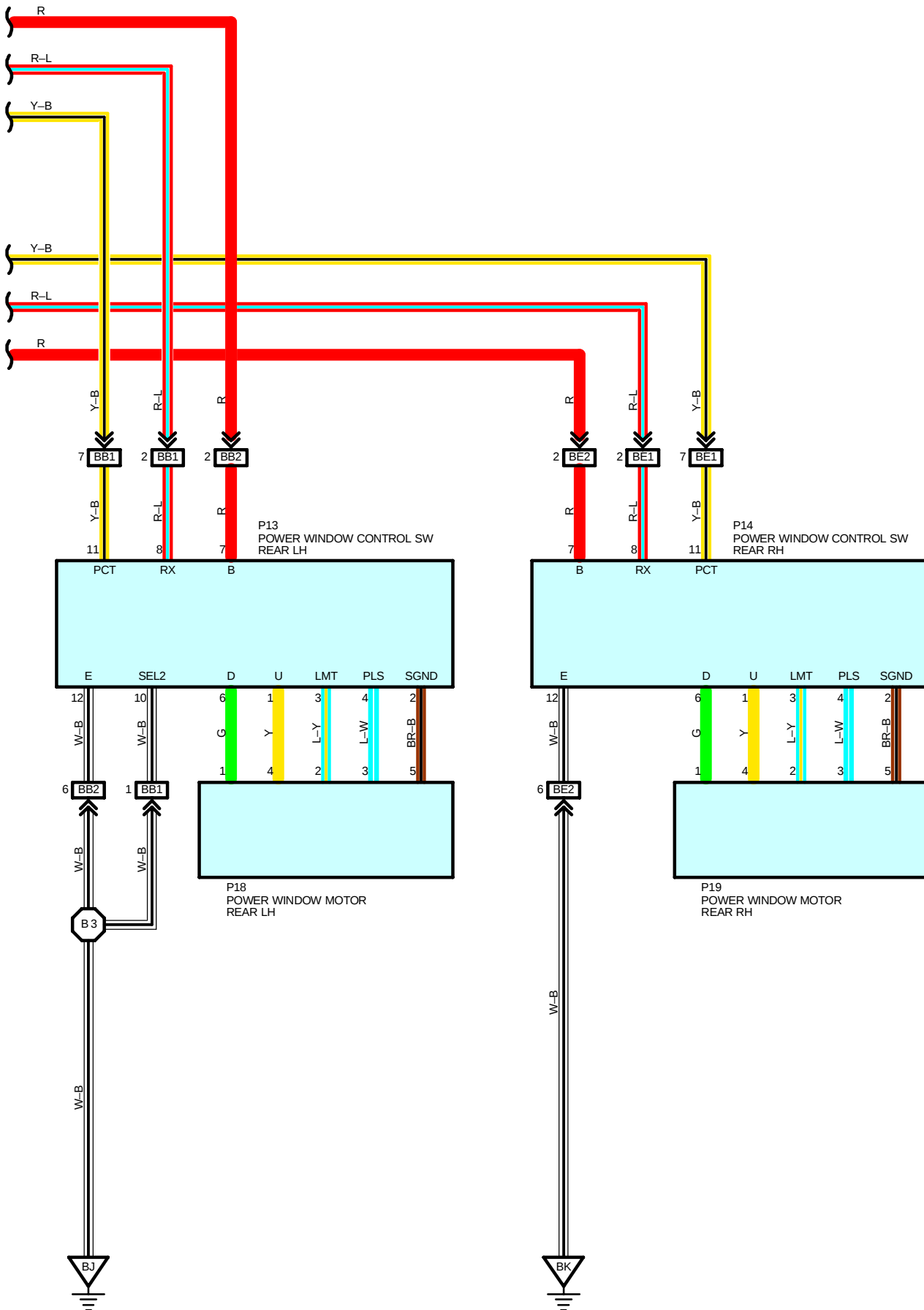


# POWER WINDOW





# POWER WINDOW



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## SYSTEM OUTLINE

### 1. MANUAL DOWN OR UP OPERATION

When the power window master SW is pressed one step, the current flows from the power window master SW TERMINAL D to power window motor front LH to power window master SW TERMINAL U to GROUND, and rotates the motor to open the window.

When the power window master SW is pulled one step, the current flows from the power window master SW TERMINAL U to power window motor front LH to power window master SW TERMINAL D to GROUND, and rotates the motor to close the window.

For the other windows, as the power window master SW and power window SW is operated, the relevant door window is opened or closed.

### 2. AUTO DOWN OR UP OPERATION

When the power window master SW is pushed two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL D to power window motor front LH to power window master SW TERMINAL U to GROUND, and rotates the motor to open the window automatically.

When the power window master SW is pulled two steps, the power window master SW determines it is in auto mode and the current flows from the power window master SW TERMINAL U to power window motor front LH to power window master SW TERMINAL D to GROUND, and rotates the motor to close the window automatically.

Accordingly, when each window switch of the power window control SW is operated, the relevant door window is automatically opened/closed.

### 3. CATCHING PREVENTION FUNCTION

When any foreign matter is caught in the window during power window up operation, the pulse sensor in the power window motor detects the changes in the number of motor rotations and forcibly opens the door window 50 mm, or when the window opening is less than 200 mm, it opens the window until the opening is 200 mm.

### 4. KEY OFF POWER WINDOW OPERATION

It is possible to operate the power window for approx. 43 seconds after the ignition SW is turned from on to off. However, when the door is opened while the window is being operated, the power window operation is stopped even though 43 seconds have not elapsed.

## SERVICE HINTS

### P15 POWER WINDOW MASTER SW

1-GROUND : Always approx. **12** volts

3-GROUND : Approx. **12** volts with ignition SW at **ON** or **ST** position  
: Approx. **12** volts with key off power window operation

9-GROUND : Always continuity

20-GROUND : Continuity with power window master SW at **MANUAL UP** position  
: Continuity with power window master SW at **AUTO UP** position

8-GROUND : Continuity with power window master SW at **MANUAL DOWN** position  
: Continuity with power window master SW at **AUTO DOWN** position

### P12 POWER WINDOW CONTROL SW FRONT RH

7-GROUND : Always approx. **12** volts

9, 12-GROUND : Always continuity

1-GROUND : Continuity with power window control SW at **MANUAL UP** position  
: Continuity with power window control SW at **AUTO UP** position

6-GROUND : Continuity with power window control SW at **MANUAL DOWN** position  
: Continuity with power window control SW at **AUTO DOWN** position

### P13 POWER WINDOW CONTROL SW REAR LH

7-GROUND : Always approx. **12** volts

10, 12-GROUND : Always continuity

1-GROUND : Continuity with power window control SW at **MANUAL UP** position  
: Continuity with power window control SW at **AUTO UP** position

6-GROUND : Continuity with power window control SW at **MANUAL DOWN** position  
: Continuity with power window control SW at **AUTO DOWN** position

### P14 POWER WINDOW CONTROL SW REAR RH

7-GROUND : Always approx. **12** volts

12-GROUND : Always continuity

1-GROUND : Continuity with power window control SW at **MANUAL UP** position  
: Continuity with power window control SW at **AUTO UP** position

6-GROUND : Continuity with power window control SW at **MANUAL DOWN** position  
: Continuity with power window control SW at **AUTO DOWN** position

# POWER WINDOW

## : PARTS LOCATION

| Code | See Page           | Code | See Page           | Code | See Page           |
|------|--------------------|------|--------------------|------|--------------------|
| D19  | <a href="#">42</a> | J17  | <a href="#">41</a> | P14  | <a href="#">43</a> |
| D20  | <a href="#">42</a> | J20  | <a href="#">41</a> | P15  | <a href="#">43</a> |
| I19  | <a href="#">40</a> | J24  | <a href="#">41</a> | P16  | <a href="#">43</a> |
| I21  | <a href="#">40</a> | J25  | <a href="#">41</a> | P17  | <a href="#">43</a> |
| J3   | <a href="#">41</a> | J26  | <a href="#">41</a> | P18  | <a href="#">43</a> |
| J4   | <a href="#">41</a> | P12  | <a href="#">43</a> | P19  | <a href="#">43</a> |
| J15  | <a href="#">41</a> | P13  | <a href="#">43</a> |      |                    |

## : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

| Code | See Page           | Junction Block and Wire Harness (Connector Location)                      |
|------|--------------------|---------------------------------------------------------------------------|
| 1D   | <a href="#">23</a> | Engine Room No.2 Wire and Engine Room J/B (Engine Compartment Left)       |
| 2D   | <a href="#">26</a> | Dash Wire and Cowl Side J/B LH (Left Kick Panel)                          |
| 2E   | <a href="#">26</a> | Engine Room No.2 Wire and Cowl Side J/B LH (Left Kick Panel)              |
| 2M   | <a href="#">26</a> | Front Door LH Wire and Cowl Side J/B LH (Left Kick Panel)                 |
| 2N   | <a href="#">26</a> | Floor Wire and Cowl Side J/B LH (Left Kick Panel)                         |
| 2P   | <a href="#">28</a> | Instrument Panel Integration Wire and Cowl Side J/B LH (Left Kick Panel)  |
| 3A   | <a href="#">32</a> | Engine Room No.2 Wire and Cowl Side J/B RH (Right Kick Panel)             |
| 3C   | <a href="#">32</a> | Dash Wire and Cowl Side J/B RH (Right Kick Panel)                         |
| 3E   | <a href="#">32</a> | Floor No.2 Wire and Cowl Side J/B RH (Right Kick Panel)                   |
| 3F   |                    |                                                                           |
| 3H   | <a href="#">32</a> | Front Door RH Wire and Cowl Side J/B RH (Right Kick Panel)                |
| 3I   | <a href="#">32</a> | Instrument Panel Integration Wire and Cowl Side J/B RH (Right Kick Panel) |

## : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

| Code | See Page           | Joining Wire Harness and Wire Harness (Connector Location)             |
|------|--------------------|------------------------------------------------------------------------|
| IU4  | <a href="#">52</a> | Instrument Panel Integration Wire and Dash Wire (Behind the Glove Box) |
| IW1  | <a href="#">54</a> | Engine Room No.2 Wire and Dash Wire (Behind the Glove Box)             |
| BB1  | <a href="#">56</a> | Rear Door LH Wire and Floor Wire (Left Side of Center Pillar)          |
| BB2  |                    |                                                                        |
| BE1  | <a href="#">56</a> | Rear Door RH Wire and Floor No.2 Wire (Right Side of Center Pillar)    |
| BE2  |                    |                                                                        |

## : GROUND POINTS

| Code | See Page           | Ground Points Location       |
|------|--------------------|------------------------------|
| IF   | <a href="#">48</a> | Set Bolt of Cowl Side J/B LH |
| IH   | <a href="#">48</a> | Set Bolt of Cowl Side J/B RH |
| II   |                    |                              |
| BJ   | <a href="#">56</a> | Under the Driver's Seat      |

**: GROUND POINTS**

| Code | See Page           | Ground Points Location                      |
|------|--------------------|---------------------------------------------|
| BK   | <a href="#">56</a> | Front Side Under the Front Passenger's Seat |

**: SPLICE POINTS**

| Code | See Page           | Wire Harness with Splice Points | Code | See Page           | Wire Harness with Splice Points |
|------|--------------------|---------------------------------|------|--------------------|---------------------------------|
| B3   | <a href="#">58</a> | Floor Wire                      | B8   | <a href="#">58</a> | Front Door RH Wire              |

